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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,028	11/16/2003	Timothy A. Daniels	RPG	1027
23217	7590	10/31/2006	EXAMINER	
GLENN L. WEBB P.O BOX 951 CONIFER, CO 80433			FAN, HONGMIN	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/707,028	<b>Applicant(s)</b> DANIELS ET AL.	
	<b>Examiner</b> Hongmin Fan	<b>Art Unit</b> 2612	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6, 10-15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cline (US 3634881) in view of Carr (US 6318155).

As to claim 1, referring to Fig. 1, Cline disclosed a high-pressure and low-pressure warning system comprising a low pressure switch 13, a high pressure switch 12 and a alert unit 30 connected to the pressure switches for displaying an alert when the pressure is either below or above preset limits. Cline did not disclose a manifold for connection to the pressurized environment. Having a manifold would allow the pressure

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switches to be mounted in places other than directly to the pressure environment, which provide flexibility and easy for maintenance. Referring to Fig. 1, Carr et al teaches a pressure testing apparatus having a manifold connected to a pressurized automotive cooling system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Carr's manifold into Cline's system in order to provide flexibility as to where to locate the pressure switches.

As to claim 2, Cline did not disclose a pressure gauge. To have a pressure gauge will show user the pressure measurement in the pressure environment. Carr teaches a pressure testing apparatus comprising a pressure gauge 15 connected to the manifold. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Carr's pressure gauge into Cline's system in order to provide user up-to-date pressure measurement.

As to claims 3-4, Cline did not disclose the alert displays are LED. Having LED would save energy and have longer lifetime. Carr further teaches LED display may be utilized for the pressure gauge (col. 5, line 13-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Carr's LEDs into Cline's system in order to save energy and have longer lifetime.

As to claims 5-6, Cline did not disclose the pressure gauge is either mechanical or analog. Mechanical and analog gauge is simple in structure and cheaper to make. Carr further teaches analogy may be utilized for the pressure gauge (col. 5, line 13-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

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invention to incorporate Carlson's mechanical and analog gauge into Cline's system in order to save cost.

As to claim 10, Cline disclosed a coolant system for an engine (col. 2, lines 8-11).

As to claim 11, the claim is interpreted and rejected as claims 1 and 2 stated above.

As to claim 12-13, the claims are interpreted and rejected as claims 3-4 stated above.

As to claim 14-15, the claims are interpreted and rejected as claims 5-6 stated above.

As to claim 18, the claim is interpreted and rejected as claim 10 stated above.

As to claim 19, the claim is interpreted and rejected as claim 1 stated above.

As to claim 20, the claim is interpreted and rejected as claim 2 stated above.

Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cline in view of Carr, further in view of Nancarrow et al (US 4969332).

As to claim 7, neither Cline nor Carlson disclosed a digital pressure gauge. Digital gauge will give more accurate measurement. Nancarrow et al teaches a controller for an engine with digital pressure gauge (col. 9, lines 36-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a digital pressure gauge in Cline's system in order to have a more accurate measurement.

As to claim 16, the claim is interpreted and rejected as claim 7 stated above.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cline in view of Carr, further in view of Angell et al (US Pub. 2002/0085366).

As to claim 8, all the claimed subjects have been discussed except an LED is mounted on the pressure gauge. LED is used a light source so that the gauge will be readable in the dark. Referring to Fig. 1 and 2, Angell et al teach a panel lit cluster comprising a LED 36 to illuminate a gauge 22. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Angell's LED lighted gauge into Cline's system in order to have the gauge being readable in the dark.

Claims 9, 17, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cline in view of Carr, further in view of Salmon et al (US 5406303).

As to claim 9, neither Cline nor Carlson disclosed the pressure gauge includes a fluorescent dye with an ultraviolet light source. Fluorescent dye with an ultraviolet light source will enable the pressure gauge being visible in dark. Referring to Fig. 4, Salmon et al teaches instrument display system comprising a fluorescent display unit for speed gauge. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Salmon's fluorescent display into the system of Cline and Carlson in order to enable the pressure gauge being visible in dark.

As to claim 17, the claim is interpreted and rejected as claim 9 stated above.

As to claims 21 and 22, the claims are interpreted and rejected as claim 1 and 9 stated above.

***Response to Amendment***

Applicant's remarks are moot due to new grounds of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Maier-Laxhuber disclosed a cooling system having a vacuum tight steam operating manifold (Us 5415012).

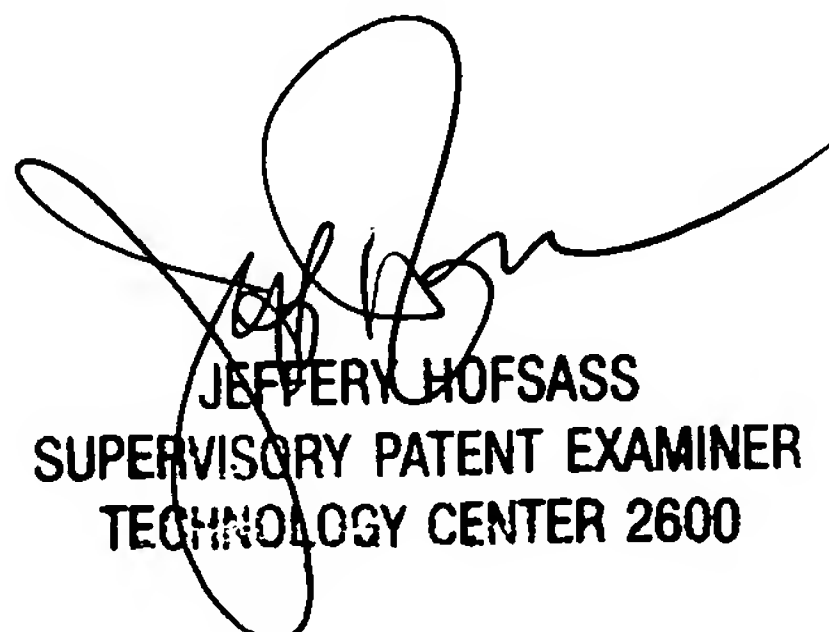


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hongmin Fan whose telephone number is 571-272-2784. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Hofsass can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HF



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